REMARKS

This Amendment is submitted in response to a Non-Final Office Action of August 27, 2007 wherein claims 1-30 were rejected.

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In section 2 the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because of a reference number 18 in figure 2a. Actually, the error was in the text on page 13, line 21, which is corrected to read "power amplifier **18**" instead of "power amplifier **18a**".

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In section 3, several formal objections are made. The appropriate corrections are made.

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Claims 15, 26 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as an invention.

The applicant made appropriate corrections in claims 15, 16, 26 and 28.

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In section 10, claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Examiner alleges that a computer readable storage structure does not constitute non-statutory subject matter.

The Applicant respectively disagrees with the Examiner. The Applicant is not familiar with a statute which supports the Examiner statement. Furthermore, claim 15 of the present invention recites "a computer readable storage structure

embodying computer program code ..." which implies that the computer program is stored in the computer-readable medium. MPEP section 2106.1 (a) states:

" In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory."

Therefore, claim 15 of the present invention describes a statutory subject matter.

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Claims 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Iwasaki et al. (US Patent Aplication No. 2004/0136540). The applicant believes that the Examiner's statement is not quite accurate and needs further clarification.

The Examiner's arguments are analyzed based on MPEP guidelines which are stated in the MPEP Paragraph 2131 as follows:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP 2131. Further, "the identical invention must be shown in as complete details as is contained in the . . . claim", *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)."

The Examiner alleges that means for predicting recited in claim 26 is equivalent to low pass filters 101 and 102 of Iwasaki et al. This is not quite accurate because the means

for predicting (e.g., block 14a in figure 2a of the present patent application) recited in claim 26 is equivalent to the performance of the part 9 shown in Figure 2 of US Patent No. 4,327,250, "Dynamic Speaker Equalizer", by D. R. von Recklinghausen, as stated on page 10 of the present patent application. This part 9 of von Recklinghausen is a transducer analog circuit designed for providing an output signal analogous to the transducer characteristics being monitored as, for example, cone displacement (see col. 3, lines 39-44 of von Recklinghausen). Low pass filters 101 and 102 of Iwasaki et al. have totally different function (primarily low frequency level detection): see paragraphs 0066 and 0067 of Iwasaki et al. Moreover, means for predicting provides a displacement prediction signal which is not done by Low pass filters 101 and 102 of Iwasaki et al. Therefore, means for predicting recited in claim 26 is different from the low pass filters 101 and 102 of Iwasaki et al., contrary to what is alleged by the Examiner.

Furthermore, means for calculating recited in claim 26 of the present invention perform calculations of the parameters provided to the means for filtering. The Examiner draws the parallel between the means for calculating recited in claim 26 and a control unit 6 of Iwasaki et al. This is also not quite accurate because control unit 6 does not perform calculations but rather perform managing function as explained in detail in paragraphs 0071 and 0072 of Iwasaki et al.

Thus, Iwasaki et al. do not teach all claim limitations of claim 26 of the present invention required by the MPEP Rule 2131 quoted above, therefore, claim 26 is novel and is not anticipated by Iwasaki et al. under 35 USC Section 102(e).

To further clarify its scope, claim 26 is amended to include a clarification "determined using a required shelving frequency for providing said limiting of said vibration displacement" which further separate claim 26 of the from Iwasaki et al, quoted by the Examiner. This amendment is fully supported by the specification: e.g., see page 15, line 14 to page 16, line 4.

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Claims 1-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki et al. (US Patent Aplication No. 2004/0136540) in view of Johnson et al. (US Patent 7184556).

The Examiner's arguments are analyzed using MPEP paragraph 2143 which states:

"To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. ***In re Vaeck***, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

For example, in regard to claim 1, the arguments presented above in reference to claim 26 are fully applied to displacement predictor block **14a** and parameter calculator **16a** (equivalent to means for predicting and means for calculating, respectively, as recited in claim 26). Thus, Iwasaki et al. do not teach all claim limitations of claim 1 in reference to

predictor block 14a and parameter calculator 16a recited in claim 1 of the present invention.

Moreover, the Examiner admits that Iwasaki et al. do not disclose **low frequency shelving and notch filter** recited in claim 1 of the present invention, but Johnson et al. do, referring to Figure 4d of Johnson et al. The applicant is of opinion that resonant notches shown in figure 4d of Johnson et al. has nothing to do with **low frequency shelving and notch filter** recited in claim 1 of the present invention. This is because notches in Figure 4d of Johnson et al. are for compensation in the middle of the acoustic spectrum (see Figure 4f of Johnson et al.) of enclosure and mechanical resonances (see figure 3d of Johnson et al.) and has nothing to do with **shelving frequencies** (e.g., see page 15, line 14 to page 16, line 4 of the present invention) which are used in the present invention for providing the limiting of the vibration displacement using **low frequency shelving and notch filter**. It is also not clear to the applicant which filter in Johnson et al. is referred by the Examiner as a **low frequency shelving and notch filter** as recited in claim 1 of the present invention. The present invention provides a detailed description of this filter (pages 10-19) and generally this filter has an order equals twice the number of mechanical degrees of freedom in the loudspeaker 20 (see page 10, lines 22-23 of the present invention). Johnson et al. do not describe such a filter. In other words, Johnson et al. does not even hint about **shelving frequencies**, therefore Johnson et al. do not disclose the **low frequency shelving and notch filter** recited in claim 1 of the present invention, contrary to what is alleged by the Examiner.

Thus, Iwasaki et al. and Johnson et al. quoted by the Examiner do not disclose several limitations of claim 1 of the

present invention which is required by the MPEP paragraph 2143. Therefore combining Iwasaki et al. and Johnson et al. will teach away from the subject matter of claim 1 of the present invention.

In addition, in regard to claim 1 of the present invention, the Office failed to show prima facie case of obviousness and demonstrate or provide a reasonable arguments in regard to "**suggested desirability or motivation**" or "**reasonable expectation of success**" for combining references by a person skilled in the art at the time of the invention without the benefit of hindsight (assuming **for sake of argument only** that quoted references teach or suggest all the limitations of independent claim 1), as required by MPEP paragraphs 2143 (quoted above) and 2142, and by an extensive case law on the subject. Additional arguments in that regard can be presented by the applicant if requested by the Office.

Independent claims 16 and 28 of the present invention have similar scope as claim 1, therefore the arguments presented above are fully applied to independent claims 16 and 28. Thus, based on all above arguments, claims 1, 16 and 28 are not obvious under 35 U.S.C. 103(a) as being unpatentable over Iwasaki et al. in view of Johnson et al.

To further clarify their scope, claims 1, 16 and 28 are amended (similar to claim 26) to include a clarification in regard to using a required shelving frequency for providing limiting of the vibration displacement which further separate claims 1, 16 and 28 of the present invention from Iwasaki et al. and Johnson et al. quoted by the Examiner. This amendment of claims 1, 16 and 28 is fully supported by the specification: e.g., see page 15, line 14 to page 16, line 4.

Moreover, the novelty and non-obviousness of dependent claims 2-15, 17-25, 27 and 29-30 is provided by the novelty

and non-obviousness of amended claims 1, 16, 26 and 28 under 35 U.S.C. 103(a). Further arguments in regard to unique limitations of the dependent claims 2-15, 17-25, 27 and 29-30, not disclosed by the references quoted by the Examiner, can be presented by the applicant if requested by the Office.

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The rejections and objections of the Official Action of August 27, 2007 having been obviated by Amendment or shown to be inapplicable, withdrawal thereof is requested, and passage of the claims to issue is earnestly solicited.

Respectfully submitted,

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